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EXAMINER

BANH, DAVID H

ART UNIT

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2854

NOTIFICATION DATE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. 10/537,099 | Applicant(s) VAN DE BOVENKAMP, ANTONIE SELIS | |
| | Examiner DAVID BANH | Art Unit 2854 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,9-15 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,9-15 and 17-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on July 27, 2010 have been fully considered but they are not persuasive. Applicant argues that there would be no motivation to look to the secondary Mailander reference or combine it with the primary Tsukamoto reference. Applicant first argues that Mailander would not be a relevant reference because it is directed to varnishing instead of flexographic printing. Examiner disagrees, as both references are directed to the art of printing and it is known that the position of the anilox cylinder relative to the printing cylinder will have an effect on the quantity of ink or varnished transferred.

Applicant next argues that the Office Action does not provide objective factual evidence that the printing system of the combination of Tsukamoto and Mailander would resulted in a flexographic printing system that employs plates of different thicknesses as opposed to a metal substrate that needs varnish. It is believed that modifying the printing system of Tsukamoto, which is flexographic, to simply make the cylinders and rollers relatively adjustable would clearly result in a flexographic printing machine.

Applicant argues that Mailander does not teach the limitations of claim 1 for which it is relied upon, particularly, that positioning the varnish feed roller is not affected by a positioning change of the varnishing cylinder relative to the impression roller and a positioning change of the varnish feed roller relative to the varnishing cylinder does not affect the positioning of the varnishing cylinder relative to the impression roller.

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Examiner is unclear from where Applicant draws this conclusion. Mailander, in Fig. 2, shows a frame **11** carrying the impression roller **14**, while a second frame **10** is connected through piston **19** to the frame **11** and carries the cylinder **15** and a third frame **17**, is connected to the second frame **10** by piston **21**, the third frame carrying the feed roller **18**. Thus, adjustment of the piston **19** would adjust the position of the varnishing cylinder relative to the impression cylinder **14** while allowing the varnishing cylinder **15** to remain in the same position relative to the feed roller **18** and adjustment of the piston **21** would throw off the feed roller **18** from the varnishing cylinder **15** leaving the varnishing cylinder **15** in the same position relative to the impression cylinder **14**.

Applicant argues that Tsukamoto does not need to be modified to work properly. However, this argument is not persuasive. All disclosed inventions are presumed to work properly. Instead, the use of the moving frames is simply an improvement over the mechanism for moving the rollers in Tsukamoto as it would allow for a greater field of adjustment. Additionally, Applicant argues that the frames movement would result in spilling of the ink. Examiner does not believe that the combination would render the apparatus inoperative. Furthermore, it is believed that one of ordinary skill in the art would know to increase the height of the sidewalls to adequately prevent spilling of ink.

Applicant argues that Mailander "teaches away" from being used with Tsukamoto. Examiner disagrees. A reference teaches away from a concept if the combination produces an inoperative device. Even the suggestion within a reference that a combination would be inefficient does not teach away from the combination. In fact, the suggestion discloses the combination, and simply points out its deficiencies.

In the present rejection, neither reference suggests that the combination would be inoperable. Therefore, neither reference teaches away from the other reference.

With respect to the argument directed to claims 2-4 that the ink would spill from Tsukamoto's open ink tray, nothing suggests that pivoting would sufficiently angle the apparatus to spill over the walls of the ink tray. It is further obvious to make the walls of a container higher to prevent spilling.

Stuchlik is not relied upon to teach any pivoting nature of the frames or cylinders, but simply a stop surface. The use of a stop surface would be applicable to both the pivoting of Stuchlik and Mailander et al.

Examiner has already previously addressed the argument that the combination does not teach the limitation that the change of the plate cylinder relative to the impression roller does not affect the positioning of the anilox roller and changing the positioning of the anilox roller does not change the plate cylinder relative to the impression roller. The teaching of the limitation is drawn from the structure of the frames carrying the cylinders in Mailander.

The limitations of a plate cylinder and a doctor, anilox and impression roller are taught in the primary reference of Tuskamoto. The combination of the stop features into the claims is obvious for the purpose of preventing excessive movement of the frames.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 9-11 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto (US PG Pub 2003/0061956) in view of Mailänder (US Patent 5,683,512).

For claims 1 and 23: Tsukamoto teaches a printing machine comprising a printing module **10** comprising an impression roller **17** being rotatably mounted (see Fig. 1, the impression cylinder **17** is shown to be rotating by the arrow), a plate cylinder assembly (see Fig. 1, frame **F**, cylinder **16** and shaft **16A**) having a plate cylinder **16** that is provided with a print image and that, in use, with the interposition of a substrate **P** abuts against the impression roller **17** (see Fig. 1, the plate cylinder **16** is shown, any plate cylinder has an image and the plate cylinder **16** is shown contacting the paper **P** and the impression roller **17**), an ink reservoir **11**, a doctor roller **13** configured to take ink **I** up from the ink reservoir **11** (see Fig. 1), an anilox roller **15** being arranged between the doctor roller **13** and the plate cylinder **16** configured to remove a desired amount of ink from the doctor roller and transfer ink **I** to the plate cylinder **16** (see Fig. 1, the anilox roller is arranged between the doctor and the plate, and thus transfers a quantity of ink from one to the other), a first subframe **F** in which the plate cylinder **16** is rotatably mounted (see Fig. 1, the arrow indicates the rotation of the plate cylinder **16**), and a second subframe **F1** in which the anilox roller **15** and the doctor roller **13** are rotatably mounted (see Fig. 1, again the arrows indicate rotation). Tsukamoto does not teach or show that the impression roller is mounted on a main frame, nor does it shown that the first subframe is pivotably mounted on the main frame through a first pivot, and

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the second subframe is pivotably connected to the main frame through a second pivot such that a positioning change of the plate cylinder relative to the impression roller does not affect the positioning of the anilox roller relative to the plate cylinder and that a positioning change of the anilox roller relative to the plate cylinder does not affect the positioning of the plate cylinder relative to the impression roller. However, Mailänder teaches a main frame **11** and an impression roller **14** rotatably mounted on the main frame **11**, a first subframe for mounting a cylinder **15** for rotation (see Fig. 2 and the arrow), that is pivotably connected to the main frame **11** through a first pivot **12** for positioning the cylinder **15** relative to the impression roller **14**, and a second subframe **17** in which an coating unit **23** comprising a varnish reservoir **25** and varnish taking-up and metering rollers **18**, **28** are rotatably mounted, the second subframe **17** being pivotably connected to the main frame **16** (see Fig. 2, the second subframe is pivotably connected to the first subframe which is connected to the main frame, thus the second subframe can pivot relative to the main frame), such that a positioning change of the cylinder **15** relative to the impression roller **14** (actuated by pivoting the first subframe **10** only relative to the main frame **11**) does not change the positioning of varnishing roller **18** relative to the cylinder **15** and a positioning change of the varnishing roller **18** relative to the cylinder **15** does not change the positioning of the cylinder **15** relative to the impression roll **14**. It would have been obvious to one of ordinary skill in the art at the time the invention was made to dispose the printing cylinder, inking unit and impression roller as taught by Tsukamoto in the first subframe, second subframe and

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main frames as taught by Mailänder for the purpose of being able to precisely adjust the relative pressures between the cylinders to evenly transfer ink.

For claim 9: The combination of Tsukamoto and Mailänder teaches the printing module of claim 1 and Mailänder further teaches a first piston cylinder assembly **19** which has a first end connected to a main frame **11** and a second end connected to the first subframe **10** (see Fig. 2) such that the pressure which the plate cylinder exerts in use on the impression roller is settable with the aid of the piston cylinder assembly **19** (see column 3, lines 10-15).

For claim 10: The combination of Tsukamoto and Mailänder teaches the printing module of claim 1 further comprising a second piston cylinder assembly **22** which has a first end connected with the main frame (see Fig. 2, the first end is connected indirectly to the main frame by being connected to the first subframe, which is then connected to the main frame, alternatively, the main frame can be considered to comprise all of the subframes), and a second end connected with the second subframe (see Fig. 2), such that with the aid of the second piston cylinder assembly, the second subframe is adjustable relative to the mainframe (see column 3, lines 15-30, the second piston cylinder **22** is a positioning cylinder, which adjusts the position of the second subframe, and, as the main frame remains stationary, this adjusts the positioning of the second subframe relative to the mainframe).

For claim 11: The combination of Tsukamoto and Mailänder teaches the printing module of claim 1 further comprising a second piston cylinder assembly **22** which has a first end connected with the first subframe **10** and a second end connected with the

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second subframe **17** such that with the aid of the second piston cylinder assembly **22**, the second subframe is adjustable relative to the first subframe (see column 3, lines 13-16, the piston **22** is a positioning device).

4. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto (US PG Pub 2003/0061956) and Mailänder (US Patent 5,683,512) as applied to claim 1 above, and further in view of Stuchlik et al. (US Patent 6,006,665).

For claim 2: The combination of Tsukamoto and Mailänder teaches all of the limitations of claim 2 except for a stop surface that is provided on the plate cylinder assembly and a stop that is provided on the second subframe and abuts against the stop surface, the position being settable relative to the second subframe. However, Stuchlik et al. teaches a stop surface provided on the plate cylinder (see Fig. 1, the trapezoidal surface on the top of plate cylinder 18), a stop 52 provided on the second subframe 30 and abuts the stop surface of the plate cylinder in use (column 2, lines 37-45, the stop abuts the stop surface to maintain the positioning of the anilox cylinder with the plate cylinder, the anilox cylinder being position with end plate 30). Finally, the position of the stop is set relative to the frame as it is given a specific location as seen in Fig. 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a stop surface on the plate cylinder and a stop on the subframe to maintain the relative position of the anilox cylinder and the plate cylinder to prevent an excess of ink from being applied to the plate cylinder.

For claim 4: The combination of Tsukamoto, Mailänder and Stuchlik et al. teaches all of the limitations of claim 2 and further Stuchlik et al. teaches a stop surface

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provided on the plate cylinder assembly (as taught for the claim above), a portion of the stop surface being settable relative to the plate cylinder (see Fig. 1, the stop surface is set in position relative to the plate cylinder), and a stop that is provided on the second subframe and abuts the surface of the plate cylinder (see Fig. 1 and column 2, lines 37-45 as above).

5. Claims 12, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto (US PG Pub 2003/0061956) and Mailänder (US Patent 5,683,512) as applied to claim 1 above, and further in view of Ishii (US Patent 4,879,950).

For claim 12: The combination of Tsukamoto and Mailänder teaches all of the limitations of claim 12 except a stationary shaft on which the plate cylinder is mounted, stop rings provided on opposite sides of the plate cylinder fixed connected to a stationary shaft and a supporting ring connected to the stationary shaft on opposite sides of the cylinder. However, Ishii teaches a stationary shaft **102** on which the plate cylinder **101** is mounted, a first stop ring **112** and corresponding a second stop ring **113** provided on opposite sides of the printing cylinder **101** on the shaft **102** and supporting rings **103**, **104** being bearings connected to the shaft **102** on opposite sides of said cylinder **101** (see Fig. 9, and correspondingly column 6, lines 30-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a stationary shaft **102** with stop rings **112**, **113** and supporting rings **102**, **103** connected to the shaft for the purpose of securely and rotatably holding the cylinder onto the frame. It should be noted that the surface of a stop ring is a stop surface.

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For claim 13: The combination of Tsukamoto, Mailänder and Ishii teaches the printing module of claim 12 and Ishii further teaches a first subframe **105, 106** that further comprises two receiving units **109, 110** disposed on opposite sides of the plate cylinder **101** configured to receiving the support rings **103, 104** when the plate cylinder is in an operative position (see Figs. 9 and 10, the frames comprise bearings **109, 110** that indirectly receive the support rings).

For claim 14: The combination of Tsukamoto, Mailänder and Ishii teaches the printing module of claim 13 wherein Ishii further shows a support surface provided with a particular curve on the receiving units **109, 110** (the units have a surface with some type of curve). Since the anilox roller and the plate cylinder are touching and the plate cylinder and the impression cylinder are touching, the distances between them respectively are both zero and equal.

6. Claims 15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto (US PG Pub 2003/0061956), Mailänder (US Patent 5,683,512), and Ishii (US Patent 4,879,950) as applied to claim 13 above, and further in view of Washchynsky et al. (US Patent 4,878,427).

For claim 15: The combination of Tsukamoto, Mailänder and Ishii teaches all of the limitations of claim 15 except fixation means configured to fixate a plate cylinder assembly in the receiving units, the fixation means located under the plate cylinder assembly. However, Washchynsky et al. teaches fixation means (see Fig. 5) for a cylinder about the cylinder axis **102** (see column 6, lines 35-40), the fixation means having a rod **128** at an upwardly directed end provided with a hook **94** (see Fig. 5), the

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hook engaged to that stationary shaft of the cylinder **102** while a pull force is exerted on the rod **128** to press cylinder into a receiving unit **112**. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the plate assembly of the combination of Tsukamoto, Mailänder and Ishii with a pair of hook and rod mechanisms for moving the cylinder on both ends of the cylinder shaft for the purpose of moving the cylinder in and out of an operating position.

For claim 17: The combination of Tsukamoto, Mailänder, Ishii and Washchynsky et al. teaches the printing module of claim 15 and Washchynsky et al. further comprising two piston cylinder assemblies **122**, **124**, **126** each connected to one of the two rods at an end of the rod remote from the hook, each assembly being configured to adjust the position of the associated rod and to exert a pulling force (see Fig. 5 and column 7, lines 1-5).

For claim 18: The combination of Tsukamoto, Mailänder and Washchynsky et al. teaches the printing module of claim 15 and Washchynsky et al. further teaches that the fixation means further comprises bearing surfaces configured to support the assembly when the fixation means are in a release position in which the plate assembly is lifted out of the receiving units such that the plate cylinder assembly can be taken out of the printing module (hook **92** being a bearing, see column 6, lines 35-45, has a surface on which the cylinder and cylinder shaft rest).

For claim 19: The combination of Tsukamoto, Mailänder, Ishii and Washchynsky et al. teaches the printing module of claim 15 and Washchynsky et al. teaches that each rod is provided with a bearing surface (see Fig. 5, hook **92** is a bearing and has a

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surface, column 3, lines 35-45), and is configured such that upon upward movement of the rod, the bearing surface automatically enters into engagement with the shaft and lifts the plate cylinder (if the rod is moved, the hook will contact the plate cylinder shaft and is capable of moving the plate cylinder assembly).

For claim 20: The combination of Tsukamoto, Mailänder, Ishii and Washchynsky et al. teaches the printing module of claim 15 and Mailänder shows that a portion of the first subframe extends above a region for receiving units for the shaft of the plate cylinder, which constitutes a receiving means for mounting additional processing means (see Fig. 2, a portion of the first subframe can be used to mount additional processing means and thus is a receiving means).

For claim 21: The combination of Tsukamoto, Mailänder, Ishii and Washchynsky et al. teaches the printing module of claim 20 and Mailänder teaches receiving means which comprises two guides (the frame of the printing unit is constituted by two frame walls on either end to hold the shafts on the cylinder **15** and thus each frame wall constitutes one of the two guides).

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto (US PG Pub 2003/0061956), Mailänder (US Patent 5,683,512), Ishii (US Patent 4,879,950) and Washchynsky et al. (US Patent 4,878,427) as applied to claim 20 above, and further in view of Korem (US Patent 6,125,751).

For claim 22: The combination of Tsukamoto, Mailänder, Ishii and Washchynsky et al. teaches all of the limitations of claim 22 except that the additional processing means comprises at least one of a substrate web inverting unit, a winder and a

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laminating unit. However, Korem teaches a substrate web inverting unit **33** (see Fig. 1) for inverting a web to allow it to be printed on both sides. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a web inverting unit in the frame of the printing unit above the receiving units to invert the web substrate for the purpose of allowing the web to be printed on either side or both sides.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DAVID BANH** whose telephone number is (571)270-3851. The examiner can normally be reached on M-F 9:30AM - 8PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DHB

/Ren L Yan/
Primary Examiner, Art Unit 2854